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# Who Will Take the Heat?

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## Background

### The challenge of climate change

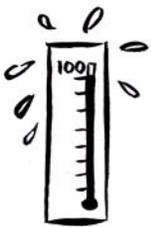
Today the U.S. is the biggest contributor to global warming, also called global climate change. Fifty years from now, China is expected to be the biggest. How can these two countries work together to deal with the problem of global warming?

Here are some key facts:

People around the world, especially in richer, industrialized countries, are burning more and more coal, oil, and gas (“fossil fuels”). Over the past 150 years, the Industrial Revolution in the U.S., Western Europe, the former Soviet Union, and Japan has created societies that depend on fossil fuels for most of their energy. Today, people in the U.S. use more fossil-fuel energy per person than in any other country.



Over the past century, Earth has warmed by about 1 degree F. In fact, ten of the warmest years have occurred since 1983, with seven of them since 1990. Earth could be getting warmer on its own, but many of the world’s leading climatologists believe the things people do are helping to make Earth warmer. When we use fossil fuels to drive our cars, run power plants, and heat and cool our homes and offices, one of the byproducts is a gas called carbon dioxide (CO<sub>2</sub>). Carbon dioxide goes into the atmosphere, where it traps heat rising from the Earth’s surface (acting like glass in a greenhouse). Figuring out to what extent the human-induced accumulation of greenhouse gases is responsible for global climate change is difficult, because other factors, both natural climatic variations and human actions, affect Earth’s temperature.



Global climate change could cause very serious problems. Though scientists are not sure how serious the impact of global warming will be, they believe that it could:

- lead to stronger, more damaging storms, and longer, more costly droughts all over the world;
- seriously damage food production in parts of the world that are already warm and dry;
- cause the extinction of many plant and animal species; and
- possibly raise sea levels by enough to put large coastal areas where millions of people now live underwater.

Over the next 20 years, some large developing countries, especially China, are likely to burn much more coal and oil, increasing global warming. In the past 20 years, China and some other large developing countries have developed their industries, their cities, and their roads very quickly. Now, China and others are about to make big new investments in industry, power plants, city buildings, roads, and cars. Because China has huge amounts of coal, it is planning to use coal as the main fuel for its power plants and industries. China will also need to use huge amounts of oil for the large number of cars it is planning to build for the new Chinese middle class. If things continue the way they are now, by 2020 China is likely to burn more fossil fuel and contribute more to global warming than the U.S.

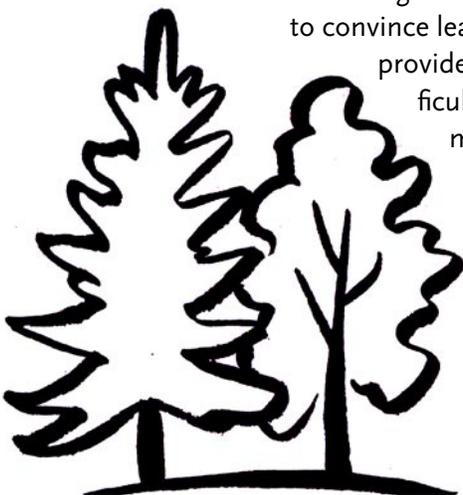
### International negotiations on climate change



The U.S. and China have both signed the Framework Convention on Climate Change, an international treaty that commits the nations of the world to work together to reduce global warming. The Convention says, however, that the U.S. and other rich industrial countries should take most of the responsibility for action. During negotiations, the governments of China and other developing countries argued that the climate change problem had been created by the richer countries over the past 150 years. They also pointed out that rich countries still use much more fossil fuel per person than poor countries, and that they have more resources to deal with the problem. For all these reasons, China and other developing countries insisted that the U.S. and other industrialized countries should reduce their greenhouse-gas emissions first, and should help poorer countries protect themselves from the impacts of climate change.

However, the governments of the U.S. and other industrialized countries have been reluctant to take strong action to reduce climate change. There are three main ways to reduce greenhouse-gas emissions: switching to non-fossil energy sources (such as hydroelectric, solar, wind, and nuclear), increasing energy efficiency, and taking carbon out of the atmosphere by planting trees. The problem is that all of these strategies cost money in the short run, even though many environmentalists and some economists argue that they will make the environment and the economy better off in the long run.

All of the richer countries have democratically elected governments whose leaders are focused on doing things that benefit voters today. It is politically very difficult to convince leaders or voters to take action that costs money now and provides benefits many years in the future. It's even more difficult to convince them to take actions that are likely to have more benefits for the children and grandchildren of people living in poor countries than for their own children and grandchildren. These basic economic and political problems have made it difficult for the richer countries to take strong action to reduce their greenhouse-gas emissions.



## The U.S., China, and climate change

The U.S. and China are in many ways the world's two most important countries when it comes to the issue of climate change. The U.S. is the world's wealthiest country and the biggest emitter of greenhouse gases. American scientists have led much of the research on climate change, while American industries, workers, and political leaders have been politically divided on what to do about climate change. Some people and politicians want to take action to reduce U.S. greenhouse-gas emissions even if it requires some economic sacrifices. Others do not think that the problem is significant enough to justify any costly action.

China is soon to become the second-biggest emitter of greenhouse gases and will likely overtake the U.S. as the biggest emitter sometime in the next 20 years. With 1.3 billion people, a very rapidly growing economy, and huge coal fields that it plans to continue using to generate electric power and heat, the decisions China makes on climate change over the next 20 years will be absolutely critical to the long-term impact of humans on the global climate. Traditionally, China's Communist Party leadership has emphasized economic growth over environmental protection, and China's people are just beginning to become aware of environmental issues. Still, China is changing very fast politically, and there is a strong movement to deal with the environmental problems created by burning coal. Many of those problems affect Chinese people's health today, so it might be in China's interest to reduce its use of coal even if it didn't care about global warming.

Political leaders in the U.S. and China will respond to domestic public opinion and interest groups. But international businesses and environmental groups will also shape their actions. International business groups want to have more certainty about whether and how greenhouse-gas emissions may be regulated. They can offer new technologies to improve energy efficiency and bring down the cost of low-carbon fuels. Technology transfer of this type—providing China and other developing nations with more efficient technologies before they begin implementing them on a large scale—offers a lot of potential. However, China may need financial assistance to adopt them. Environmental groups want the U.S. and China to make firm commitments to limit their greenhouse-gas emissions. They can help build political support for action on climate change through public awareness campaigns.



## Your assignment

Political leaders in the U.S. and China have agreed to send representatives to a special meeting to discuss how the two countries can work together to deal with the problem of climate change. They have also invited representatives of international business and the global environmental movement to join them.

They are seeking an agreement for the U.S. and China to work together on climate change, in ways that would set an example for other industrialized and developing countries.

You will take on the role of one of these representatives. You will review confidential instructions for your role and then meet with the other representatives. You will need to consider scientific and economic information about trends and possible futures, and information about the goals and interests of other representatives. Together, you should try to reach an agreement that meets everyone's main goals. But none of you should sign onto an agreement that does not meet your own goals.

